

Implementation of
ENV 41215:1992

**Information
technology —
Functional standard for
profile A/DI32 —
Directory —
Behaviour of DSAs for
distributed operations**

UDC 681.3.01/.02

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National foreword

This Draft for Development is identical with the European prestandard ENV 41215:1992 *Information technology — Functional standard for profile A/DI32 — Directory — Behaviour of DSAs for distributed operations*, prepared by CEN/CENELEC whose members have committed themselves to making it available in an appropriate form. In the UK the Draft for Development is the form now chosen for ENVs in the information technology area.

This Draft for Development is published under the direction of the Information Systems Technology Standards Policy Committee whose Technical Committee IST/21 has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any queries on interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

NOTE International and European Standards, as well as overseas standards, are available from BSI Sales Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.

After two years this ENV will be reviewed by CEN/CENELEC members with a view to its

- conversion into a European Standard (which would be implemented in the UK as a British Standard);
- extension once for a further two years;
- replacement by a revised ENV (which would be published in the UK as a revised Draft for Development);
- withdrawal.

The future of this Draft for Development is therefore bound to that of the ENV and the Draft for Development will not be reviewed or developed separately.

This publication is not to be regarded as a British Standard.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the ENV title page, pages 2 to 17 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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Descriptors: Data processing, open systems interconnection, yearbooks, implementation

English version

Information technology — Functional standard for profile A/DI32 — Directory — Behaviour of DSAs for distributed operations

Technologie de l'information — Fonctionnelle
norme pour le profil A/DI32 — Annuaire —
Mise en oeuvre des opérations distribuées par
un DSA

Informationstechnik — Funktionelle Norm für
Profil A/DI32 — Verzeichnisdienst —
Verhalten von DSAs bei verteilten
Operationen

This European Prestandard (ENV) was approved by CEN/CENELEC on 1992-04-30 as a prospective standard for provisional application. The period of validity of this ENV is limited initially to three years. After two years the members of CEN/CENELEC will be requested to submit their comments, particularly on the question whether the ENV can be converted into an European Standard (EN).

CEN/CENELEC members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

CEN/CENELEC members are the national standards bodies and national electrotechnical committees, respectively, of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN/CENELEC

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Foreword

The work on this functional standard was assigned to EWOS and elaborated by EWOS/EGDIR and ETSI TSC TE.6. It has been approved by EWOS/TA and by ETSI.

The final draft was distributed for ballot to the CEN and CENELEC members with cover letter dated 1991-10-02. The result of the ballot was positive with comments. Some comments have been incorporated into the ENV following a joint CEN/CENELEC-EWOS voting/resolution meeting held in Bern on 1992-04-30.

This work falls under the mandate from the EC Commission and EFTA referred to as BC-IT-129A.

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0 Introduction

The concept and structure of Functional Standards for Information Systems are laid down in the CEN/CENELEC/ETSI Memorandum M-IT-01. The purpose of a Functional Standard is to recommend when and how certain Information Technology standards should be used.

The specification results from joint effort by EWOS EG-DIR and ETSI TE.6.

1 Scope

1.1 General

This Functional Standard specifies the behaviour of DSAs in exercising the DAP or DSP or both in order to carry out Distributed Operations.

In the Distributed Directory, one mode of interaction is the chaining (including multicasting) of enquiries in accordance with the procedures laid down in [ISO 9594-4 | CCITT X.518]. Another is the following of referrals and of embedded continuation references.

While the procedures are comprehensively defined in these documents, a number of options and issues arise, for which little or no guidance is provided.

The scope of the present document is to lay down requirements where appropriate, and to provide guidance and recommendations to be used by DSAs when they carry out these procedures, in addition to requirements and guidance provided by [ISO 9594-4 | CCITT X.518].

The Functional Standard is particularly relevant to DSAs which conform to Functional Standards A/DI1, A/DI2 or both.

Clause 1.3 of this functional standard defines in more detail the situations in which it is to apply.

Clause 6 defines the static requirements on DSAs which are to conform to this functional standard.

Clause 7 defines procedures, or enhancements to procedures defined in [ISO 9594-4 | CCITT X.518], covering, in particular:

- Name Resolution
- Integrity of Operation Arguments
- Referrals and Chaining
- Use of Associations
- Errors
- Operation Pass-Through
- Digital Signatures
- Distributed Simple Authentication

1.2 Position in Taxonomy

This Functional Standard specifies Application Function A/DI32 “Behaviour of DSAs for Distributed Operations” as defined in the CEN/CENELEC/ETSI Memorandum M-IT-02.

1.3 Scenario Description

A DSA provides a DAP service to DUAs; these initiate associations, invoke operations and receive results. A DSA may carry out remote operations by chaining or multicasting in order to provide the service to the DUAs. A DSA that supports DSP is required to be able to respond to other DSAs which chain or multicast to it.

DSAs have, jointly with other DSAs, the requirement to provide the abstract service which is specified in [ISO 9594-3 | CCITT X.511]. This is done by following the Distributed Operation procedures defined in [ISO 9594-4 | CCITT X.518] clauses 17 and 18.

DSAs which participate in Distributed Operations need (at least) to behave in accordance with particular aspects of the Distributed Directory models:

- Distribution of the Directory in terms of naming contexts and knowledge references
(viz. [ISO 9594-4 | CCITT X.518] clauses 9 and 10)

as clarified by the requirements of clauses 6 and 7 of this functional standard.